## DETAILED ACTION

### *Claim Objections*

1. Claims 19 is objected to because of the following informalities:

Claim 19 recites a limitation "configured to" which is not a positive recitation. Under MPEP 2111.04, "language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim limitation."

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 5-10, 12-20, and 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Erb et al (US 2003/0026271).

Regarding claims 1, 9, and 12, Erb et al (Erb) discloses an apparatus (a VLAN bridge 102 in FIG. 2) and a method for receiving and formatting (framing) in a network (a network 100 in FIG. 1) comprising:

an input (not shown, but inherently required for the VLAN bridge for receiving data form a LAN Host 112) to receive a frame in a first format (an Ethernet frame, see paragraph 0018) from a first node (a first LAN Host 112) of the network, the first frame format identifying a first hierarchy (LAN) in the network; and

a framing (formatting and encapsulating) mechanism (not shown, but inherently required for transforming a data format) to add another data link layer header (L2 Header in FIG. 4) to the frame in the first format to form a frame in a second format (FIG. 4 and paragraph 0044), the second frame format identifying a second hierarchy (MPLS, i.e., Multi-protocol Label Switching) in the network.

Regarding claim 2, Erb further discloses comprising an output to transmit the frame in the second format to a second node (a second LAN Host 114) of the network.

Regarding claim 3, Erb does not explicitly disclose a processor to control operation of the apparatus, but the processor is inherently required in the VLAN bridge.

Regarding claims 5, 6, and 13, it is inherent that Ethernet frame in the first format includes a first field and a second field to hold an address specifying an address (a source address) associated with a device in the network sending the frame in the first format and an address (a destination address) specifying an address associated with a device in the network to receive the frame in the first format.

Regarding claims 7 and 8, Erb further discloses that the VLAN bridge performs bridging and switching functions (paragraph 0018).

Regarding claims 10 and 14, Erb further discloses that the second frame format includes a second MAC source address and a second MAC destination address (L2

header 252 in FIG. 4) and the VLAN bridge 102 forwards the second format frame based on the second MAC destination address.

Regarding claims 15 and 20, Erb discloses a method for forwarding data from a first end node electronic device (a LAN Host 112 in FIG. 1) to a second end node electronic device (a LAN Host 114 in FIG. 1), the method comprising the steps of:

formatting the data into a first format (Ethernet frame, see paragraph 0018)), the first format includes a first field to hold a data link layer address (a source address) specifying the first end node electronic device and a second field to hold a data link layer address (a destination address) specifying the second end node electronic device;

forwarding the data in the first format from the first end node electronic device to a first intermediate node electronic device (a VLAN bridge 102 in FIG. 1) associated with the network;

encapsulating (by the VLAN bridge 102) the data in the first format with a plurality of fields to format the data into a second format (250 in FIG. 4), the second format includes a first field to hold a data link layer address (a source address in the L2 header in FIG. 4) specifying the first intermediate node electronic device and a second field to hold a data link layer address (a destination address in the L2 header in FIG. 4) specifying a second intermediate node electronic device(a router 106 in FIG. 1) associated with the network; and

forwarding the data in the second format from the first intermediate node electronic device to the second intermediate node electronic device (a VLAN bridge 104

in FIG. 4) for forwarding of the data in the first format to the second end node electronic device.

Regarding claims 16-18, Erb further discloses that the VLAN bridge 102 performs as a first core edge device (an ingress Edge Label Router) and the VLAN bridge performs a second core edge device (an egress Edge Label Router) as recited in claims (paragraphs 0021-0023).

Regarding claim 19, Erb further discloses that the core network is based on MPLS protocol (paragraph 0025).

Regarding claim 23, refer to the discussion for claims 1 and 15.

Regarding claim 24, refer to the discussion for claim 6.

Regarding claims 25 and 26, refer to the discussion for claim 15.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 4, 11, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erb et al (US 2003/0026271) in view of Ravikanth et al (US Patent No. 6,331,978).

Erb does not explicitly teach whether the second frame format has a trailer for error detection (CRC). Ravikanth et al teaches that an MPLS frame includes a trailer for CRC (FIG. 2 and col. 5, lines 24-32).

Therefore, it would have been obvious to one having ordinary skill in the art to incorporate a trailer for CRC into the second frame format of Erb (an MPLS frame) to detect error in the frame.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Soon D. Hyun whose telephone number is 571-272-3121. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chi H Pham/
Supervisory Patent Examiner, Art Unit 2616
5/23/08

/Soon D Hyun/
Examiner, Art Unit 2616